REMARKS

Claims 1-22 are pending in the Application.

Claims 1-22 stand rejected.

I. OBJECTION TO THE DRAWINGS

The drawings have been objected to as failing to comply with 37 C.F.R. § 1.84 (p)(4) because of the repeated use of the reference numeral **404** in Figure 4A. The Applicants note that the Application was filed with informal drawings, formal drawings are being filed concurrently herewith, which formal drawings include a corrected Figure 4A in which the methodology is indicated by reference numeral **400**.

The drawings have been objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because certain reference numerals mentioned in the description have been omitted. With respect to reference numeral **100** of FIGURE 1, a corrected drawing is included in the formal drawings filed concurrently herewith. Likewise, the formal drawing of Figure 4A includes the reference numeral **400** as noted above. With respect to reference numeral **518** in Figure 5, an amendment to the Specification hereinabove corrects the typographical error with respected to reference numeral **518** by rewriting as **515.**

The drawings have also been objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because reference numeral **250** of Figure 2 is not mentioned in the written description. The Specification has been amended hereinabove to conform the written description in FIGURE 2.

II. EXAMINER INTERVIEW SUMMARY

The Applicants and Applicants' attorney thank the Examiner for the opportunity to discuss the Application and in particular the *Bereiter* reference, in a telephonic interview on February 19, 2003. The Applicants concerns with the Application of the teachings of *Bereiter* are reflected in the

Applicants' remarks hereinbelow. Additionally, the Applicants and Applicants' attorney thank the Examiner for the Examiner's efforts in examining the Application.

III. OBJECTION TO THE SPECIFICATION

The written description has been objected to because reference numeral **110** on page 9, lines 16-17 is incorrect. The written description at page 9, lines 16-17 have been rewritten to change reference numeral **110** to **101**.

IV. REJECTION UNDER 35 U.S. § 102

Claims 1, 5, 7, 9, 11, 12, 16, 18 and 19 have been rejected under 35 U.S. § 102 as being anticipated by *Bereiter*, U.S. Patent No. 5,754,763. The Applicants respectfully traverse the rejection of claims 1, 5, 7, 9, 11, 12, 16 18 and 19 under 35 U.S.C. § 102.

Claim 1 is directed to a data processing system for bulk data transfer. The system includes a source data processing system for distributing data to one or more target data processing systems, and one or more fan-out nodes for transferring the data between the source system and each of the one or more target data processing systems and transferring result information between the one or more target data processing systems and a preselected set of one or more data processing systems for managing data distributions. (Paper No. 3, page 3.) The Applicants respectfully disagree that the identified teachings disclose the invention of claim 1.

As an initial matter, *Bereiter* is directed to the auditing of licensed program usage in a matter that does not increase management overhead and that may be carried out without user involvement. (*Bereiter*, column 1, lines 7-10.) With respect to the limitation in claim 1 reciting a source data processing system for distribution data to one or more target data processing systems, *Bereiter* purportedly teaches this element of claim 1 in disclosing computing resources organized into one or more managed regions, each region being managed by a management server servicing one or more gateway machines and each gateway machine servicing a plurality of endpoint machines. (Paper No. 3, page 3) (citing *Bereiter*, column 2, lines 16-65.) This limitation of claim 1 is allegedly further

disclosed in teaching in *Bereiter* directed to geographically disbursed nodes in an overall environment managed in a distributed manner, with the managed environment logically broken down into a series of loosely connected managed regions each with its own management server for managing local resources; the network may also include other servers for carrying out other distributed network functions such as name server, security servers, file servers, etc. (Paper No. 3, page 3) (citing *Bereiter*, column 4, lines 17-21.) These teachings in *Bereiter*, by their express terms, do not disclose a source data processing system for distributing data to one or more target data processing systems. This will be discussed further hereinbelow.

With respect to the limitation reciting one or more fan-out nodes for transferring data between the source system and one or more target data processing systems, and transferring result information to a preselected set of one or more data processing systems for managing data distributions, the Examiner identifies teaching in *Bereiter* drawn to the geographically disbursed nodes in an environment that is managed in a distributed manner, preferably broken down into a series of loosely connected managed regions each with its own management server. (Paper No. 3, page 3) (citing *Bereiter*, column 4, lines 6-21.) The Examiner further identifies teaching in *Bereiter* disclosing that a network may typically include other servers such as name servers, etc. and multiple servers coordinate activities across the enterprise and permit remote site management and operation, each server serving a number of gateway machines each of which in turn supports a plurality of endpoints, in which the server coordinates all activities within the managed regions using a terminal node manager. (Paper No. 3, page 3) (citing *Bereiter*, column 3, lines 6-21.) Again, these teachings do not explicitly disclose one or more fan-out nodes for transferring data between the source system and each of one or more target data processing systems, and transferring result information to a preselected set of one or more data processing system for managing data distributions. As previously noted, *Bereiter* is directed to a system for managing licenses of deployed software, not data distributions. As the Applicants' attorney noted in the aforementioned teleconference, *Bereiter* expressly discloses that each of the endpoint machines includes a client component which is a low cost low maintenance application that is "dataless" in the sense that system management data is not

cached or stored in a persistent manner on the client. (*Bereiter*, column 4, lines 36-42.) Thus, interpreting *Bereiter* to teach a system for distributing data to one or more target data processing systems would be inconsistent with the express teaching in *Bereiter*.

Consequently, for at least the aforesaid reasons, the Applicants respectfully contend that *Bereiter* does not teach the identical invention of claim 1. Anticipation requires that a single prior art reference teach the identical invention of the claim. MPEP § 2131. Thus, the Applicants respectfully contend that claim 1 is allowable under 35 U.S.C. § 102 over *Bereiter*.

Claim 5 depends from claim 1 and recites the system thereof in which source data processing system distributes the data in response to a request from at least one of the target data processing systems. Claim 5 is rejected on disclosure in *Bereiter* discussing secure remote procedure calls used to invoke operations on remote objects, gateway machines including an operating system and a threads mechanism, and client components on each of the endpoint machines that are low cost low maintenance applications that are preferably dataless. (Paper No. 3, page 3) (citing *Bereiter*, column 4, lines 32-41.) These teachings of *Bereiter*, by their express terms, do not disclose a source data processing system distributing data in response to a request from at least one target data processing system. Therefore, *Bereiter* has not been shown to anticipate claim 5. *See* MPEP § 2131. Consequently, claim 5 is allowable under 35 U.S.C. § 102 over *Bereiter*.

Claim 7 is directed to the system of claim 6 in which the request (recited in claim 5 from which claim 6 depends) comprises a list of target data processing systems to receive the data, an identifier of a method by which the target machines will receive and process the data, and an identifier of a notification method by which the result information from each endpoint system will be received by the preselected set of one or more data processing systems for managing data distributions. As an initial matter, the Applicants note that claim 7 incorporates the limitations of claim 6 by reference, as a dependent claim depending therefrom. 37 C.F.R. § 1.75(c). Claim 6 has not been rejected as not being anticipated by *Bereiter*. (Claim 6 has been rejected under 35 U.S.C. § 103, as discussed hereinbelow.) Consequently, claim 7 is not anticipated by *Bereiter*.

The express limitation of claim 7 will be addressed hereinbelow in conjunction with claims 12 and 19.

With respect to claim 9, claim 9 is directed to a method for distributing data including the steps of transferring the data via a first set of one or more fan-out nodes to one or more endpoint systems, and transferring results information via a second set of the one or more fan-out nodes from the one or more endpoint systems to a preselected set of one or more data processing systems for managing data distributions. The results information is generated in response to the step of transferring the data. Claim 9 has been rejected on teaching in *Bereiter* that discusses transparent gateways, and a management environment broken down in a series of loosely-connected managed regions each with its own management server, previously discussed hereinabove in conjunction with, *inter alia*, claim 1. (Paper No. 3, page 4) (citing *Bereiter*, column 4, lines 6-21 and column 6, lines 32-41.) Additionally, the Examiner relies on discussion in *Bereiter* directed to the execution of management tasks in which an object supported on one machine, such as an endpoint, invokes an object located on the second machine, such as a gateway, or *vice versa*. (Paper No. 3, page 4) (citing *Bereiter*, column 8, lines 48-52.) Thus, the teaching in *Bereiter* referred to by its express terms, does not disclose transferring data, as recited in claim 9, and transferring results information via the second set of the one or more fan-out nodes . . . , in response to the step of transferring the data. Indeed, as the Applicants have previously noted, *Bereiter* particularly discloses that the endpoint systems are thin clients, that is, low cost low maintenance applications that are dataless. *See Bereiter* column 4, lines 39-42.) Because, for at least the aforesaid reasons, the Applicants respectfully contend that *Bereiter* is allowable under 35 U.S.C. § 102 over *Bereiter*. Additionally, claim 16, directed to a computer program product in a machine-readable storage medium including programming comprising instructions for performing operations paralleling the method steps of claim 9 has been rejected on the same ground as claim 9. (Paper No. 3, page 3.) For at least the reasons discussed in conjunction with claim 9, the Applicants also respectfully contend that claim 16 is not anticipated by *Bereiter*, and is, thus, allowable under 35 U.S.C. § 102 over *Bereiter*.

Claim 11 depends from claim 9 and recites the method thereof in which the step of transferring the data is performed in response to a request received from an application on at least one of the plurality of endpoints. Claim 11 has been rejected on disclosure in *Bereiter* discussing the components of a generic CORBA implementation. (Paper No. 3, page 4) (citing *Bereiter*, column 7 lines 30-38.) The disclosure teaches, for example, that in the CORBA implementation, a client is a requester of the service that is provided by an object implementation in which an Object Request Broker (ORB) delivers the request from the client and the object implementation then performs a requested service and the data returned back to the client. (*Bereiter*, column 7, lines 30-38.) Consequently, because *Bereiter* does not teach the identical invention of claim 11, it does not anticipate claim 11. Therefore, the Applicants respectfully contend that claim 11 is allowable under 35 U.S.C. § 102 over *Bereiter*. Additionally, claim 18 directed to a computer program product including instructions for performing operations paralleling the method step of claim 11 has been rejected on the same basis as claim 11. (Paper No. 3, page 4.) Consequently, claim 18 is also allowable under 35 U.S.C. § 102 for at least the reasons discussed in conjunction with claim 11.

Claim 12 depends from claim 11 and recites the method thereof in which the request (recited in claim 11) includes a list of target data processing systems to receive the data. The request also includes an identifier of a method by which the target machines will receive and process the data, and an identifier of a notification method by which the result information from each input system will be received by the preselected set of one or more data processing systems from managing data distributions. Claim 12 has been rejected over disclosure in *Bereiter* that discusses secure remote procedure calls used to invoke operations on remote objects. (Paper No. 3, page 4) (citing *Bereiter*, column 4, lines 32-36). Additionally, the Examiner relies on disclosure in *Bereiter* teaching a process in which information flow begins when an administrator selects an icon or interacts with the dialog, and information is then sent to the desktop, usually located at a gateway at which time an application callback method is invoked. (Paper No. 3, page 4) (citing *Bereiter*, column 6, lines 55-63). This teaching also discusses the callback method invoking core application methods which communicate with the application objects to perform some system management operation, any return

information or state being passed back. (*See Bereiter*, column 6, lines 55-63.) Additionally, the aforementioned teaching directed to generic CORBA implementations, and the interaction between two ORBS when an object on one machine invokes an operation on an object on a remote machine is referred to. (Paper No. 3, page 4) (citing *Bereiter*, column 7, lines 32-38 and column 8, lines 2-6). Again, the express teaching of the reference does not disclose a list of target data processing systems to receive the data, nor an identifier of a method by which the target machines will receive and process data. In sum, the teachings relied upon disclose generic remote procedure calls within a CORBA environment. Additionally, *Bereiter* is said to disclose the identifier of a notification method by which the result information from each endpoint system will be received by the preselected set of one or more data processing systems for managing data distributions by, at least implicitly, teaching that when a method completes the results are passed back to the ORB on the remote machine which returns them to the ORB on the machine invoking the operation on the remote machine, and the results are delivered to the invoking object. (Paper No. 3, page 4) (citing *Bereiter*, column 8, lines 13-18). Thus, there is no express teaching of an identifier of a notification method by which result information from each endpoint system will be received by the preselected set of one or more data processing systems for managing data distributions. To show that the limitation is implicitly taught, an examiner must provide a rationale or evidence that the result or characteristic is necessarily present in the thing described in *Bereiter* and that it would be so recognized by persons of ordinary skill. MPEP § 2112. Furthermore, this may not be established by probabilities or possibilities; the mere fact that a certain thing may result from a given set of circumstances is not sufficient. MPEP § 2112. Thus, the Applicants respectfully contend that *Bereiter* has not been shown to teach the identical invention of claim 12, explicitly or inherently, and, therefore, claim 12 is not anticipated by *Bereiter*. Claim 12 is thus allowable under 35 U.S.C. § 102 over *Bereiter*. Additionally, claim 19 has been rejected on the same basis as claim 12. (Paper No. 3, page 4.) Claim 19 is directed to a program product and recites a limitation paralleling the limitations of claim 12. For at least the reasons discussed in conjunction with claim 12, the Applicants respectfully assert that claim 19 is also allowable under 35 U.S.C. § 102 over *Bereiter*.

III. REJECTION UNDER 35 U.S.C. § 103

Claims 2, 10 and 17 have been rejected under 35 U.S.C. § 103 as being unpatentable over *Bereiter* in view of *Fujino, et al.*, U.S. Patent No. 6,085,222 ("*Fujino*"). The Applicants respectfully traverse the rejection of claims 2, 10 and 17 under 35 U.S.C. § 103.

Claim 2 depends from claim 1 and recites the system thereof in which each of the one or more fan-out nodes is operable for caching at least a portion of the data distribution and at least a portion of the result information. *Bereiter* admittedly fails to teach the limitation of claim 2. Additionally, for the reasons discussed hereinabove in conjunction with line 1, the Applicants also respectfully submit that *Bereiter* fails to teach one or more limitations of claim 2 incorporated by reference therein for the dependency in claim 1. The Examiner relies on *Fujino* as teaching the admittedly missing limitation in claim 2. (Paper No. 3, page 5.) *Fujino* is directed to a distributed communication system with adaptive data sending control in a computer network. (*Fujino*, column 1, lines 1-4.) Claim 2 has been rejected on teaching in *Fujino* discussing a caching function in a gateway nearest the client so that useless communications can be reduced more. (Paper No. 3, page 5) (citing *Fujino*, column 6, lines 4-11). Thus, the teaching in *Fujino* directed to caching in a gateway does not disclose caching a portion of a data distribution and at least a portion of result information. The Examiner further concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of a gateway to cache data and result information in the system of *Bereiter* to allow data to be quickly accessed by the end user or host. (Paper No. 3, page 5.)

The Applicants respectfully disagree with the assertion as to obviousness for several reasons. There is no reason to engraft caching into the system of *Bereiter*, suggested in one of the possible sources thereof. *See* MPEP § 2143.01. Indeed, to the contrary, *Bereiter* is directed to a mechanism for auditing licensed program usage in a distributed computer environment. (*Bereiter*, column 1, lines 1-9.) There is nothing in *Bereiter* to suggest that the volume of management data is sufficient to warrant caching. Moreover, the teaching in *Bereiter* referring to caching discloses that the client

component is a low cost low maintenance application that is dataless in the sense that system management data is not cached or stored there in a persistent manner. (*Bereiter*, column 4, lines 39-42) (emphasis added). The Applicants have found no other reference to caching in *Bereiter*. Thus, to the extent of the aforementioned teaching at least, *Bereiter* teaches away from caching. Additionally, a teaching or suggestion to combine or modify references must be clear and specific, and broad conclusory statements regarding the teachings of the references are not sufficient. *In re Lee*, 277 F.3d, 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1616 (Fed. Cir. 1999). Thus, for at least the reasons that the references alone or in combination do not teach or suggest all of the limitations of claim 2, and because there is no sufficient suggestion or motivation for modifying or combining the references, the Applicants respectfully contend that a *prima facie* showing of obviousness has not been made. Consequently, claim 2 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Fujino*.

Additionally, claims 10 and 17 have been rejected on the same basis as claim 2 (Paper No. 3, page 5.) Claims 10 and 17 each recite an express limitation that parallels the limitation of claim 2. For at least the reasons discussed above in conjunction with claim 2, the Applicants also respectfully assert that a *prima facie* showing of obviousness has not been made with respect to claims 10 and 17. Therefore, these claims are also allowable under 35 U.S.C. § 103 over *Bereiter* in *Fujino*.

V. REJECTION UNDER 35 U.S.C. § 103

Claims 3, 14 and 21 have been rejected under 35 U.S.C. § 103 as being unpatentable over *Bereiter* in view of *Nemirovsky, et al.* (U.S. Patent No. 6,477,562) ("*Nemirovsky*"). The Applicants respectfully traverse the rejection of claims 3, 14 and 21 under 35 U.S.C. § 103.

Claim 3 is directed to the system of claim 1 in which a data distribution has a preselected priority. The preselected priority is operable for determining an availability of resources for transferring of the data and the transferring of the result information. *Bereiter* admittedly fails to teach or suggest the limitation of claim 3. (Paper No. 3, page 5.) *Nemirovsky* is relied upon as

teaching the missing limitation. (*Id.*) However, *Nemirovsky* is directed to digital microprocessors and in particular to microprocessors operating with multiple processing streams. (*Nemirovsky*, column 1, lines 1-10.) *Nemirovsky* does not address data transfer over a network. Indeed the teaching relied upon in *Nemirovsky* discloses that each stream in a multi-streaming processor is assigned a priority representing the associated streams claimed processing resources relative to competing *instruction streams*. (*Nemirovsky*, column 5, line 60 through column 6, line 2) (emphasis added). Consequently, the teaching in *Nemirovsky* neither discloses or suggests a data distribution having a preselected priority, the preselected priority operable for determining an availability of resources. Additionally, reliance on implicit teaching requires that objective evidence be provided that demonstrates that the inherent characteristic is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill in the art. MPEP § 2112. No such evidence has been provided.

Additionally, a *prima facie* showing of obviousness requires that there be some motivation or suggestion to combine or modify the references to make the claimed invention. MPEP § 2143.01. The Examiner concludes that it would have been obvious to incorporate a priority record in *Bereiter's* system issuing priority to data in order to give priority to the resources. (Paper No. 3, page 6.) However, such a motivation is not found in one of the three possible sources thereof on the teachings of the references themselves, the knowledge of persons of ordinary skill in the art or the nature of the problem to be solved. Moreover, there is no rationale provided for explaining how a priority scheme for prioritizing instruction streams in a multithreaded processor may be engrafted into a mechanism for auditing software resources in a distributed computing environment. The two are unrelated. Moreover, as discussed hereinabove, such broad statements regarding the teachings of multiple references are not evidence, and do not support a *prima facie* showing of obviousness. *In re Lee*, 277 F.3d at 1433, 61 U.S.P.Q.2d at 1433-34; *In re Kotzab*, 217 F.3d at 1371, 55 U.S.P.Q.2d at 1317; *In re Dembiczak*, 175 F.3d at 999, 50 U.S.P.Q.2d at 1616.

Consequently, for at least these reasons, the Applicants respectfully contend that a *prima facie* showing of obviousness has not been made. Therefore, claim 3 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Nemirovsky*.

Claim 14 is directed to a method of claim 13 and further including the step of determining an availability of a network connection for transferring of results information in response to one of the preselected set of priority values. (Claim 14 has been rewritten to depend from claim 13 which provides antecedent basis for "the preselected set of priority values.") Claim 14 has been rejected in view of *Nemirovsky* allegedly teaching, at least implicitly, the limitations thereof. (Paper No. 3, page 6.) However, as discussed in conjunction with claim 3, the teaching in *Nemirovsky* does not address the determination of an availability of a network connection based on a selected set of priority values. The Examiner provides no rationale explaining how the teaching in *Nemirovsky* may be incorporated in *Bereiter*, concluding that it would have been obvious to do so to allow the network to process responses in a timely and efficient manner. (Paper No. 5, page 6.) Again, the Applicants respectfully contend that such broad conclusory statements are not sufficient to sustain a *prima facie* showing of obviousness. Therefore, because the references, alone or in combination fail to teach or suggest all of the limitations of claim 14, and because no motivation sufficient to sustain a *prima facie* showing obviousness has been identified in one of the possible sources thereof, the Applicants respectfully contend that claim 14 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Nemirovsky*. Additionally, claim 21 has been rejected on the same ground as claim 14. Claim 21 is directed to a program product and further including instructions for performing operations paralleling the limitations of claim 14. (Claim 21 has been rewritten to depend from claim 20 which provides antecedent basis for "the preselected set of priority values.") For at least the reasons discussed in conjunction with claim 14, the Applicants also respectfully contend that claim 21 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Nemirovsky*.

VI. REJECTION UNDER 35 U.S.C. § 103

Claim 4 has been rejected under 35 U.S.C. § 103 as being unpatentable over *Bereiter* in view of *Minear, et al.*, U.S. Patent No. 5,983,350 ("*Minear*"). The Applicants respectfully traverse the rejection of claim 4 under 35 U.S.C. § 103.

Claim 4 is directed to the system of claim 1 in which the one or more fan-out nodes comprises a plurality of fan-out nodes, and wherein the transferring of the data comprises receiving data from the source data processing system by a first fan-out node, sending data to a second fan-out node, and sending the data from the second fan-out node to one or more of the target data processing systems. *Bereiter* admittedly fails to disclose the limitations of claim 4. (Paper No. 3, page 7.) *Minear* allegedly discloses the limitation of claim 4. *Id.* The Applicants respectfully disagree.

Minear is directed to systems and methods for securely transferring information between firewalls over an unprotected network. (*Minear*, column 1, lines 1-11.) In other words, *Minear* does not address the limitations of claim 4. For example, one of ordinary skill in the art would recognize that a firewall is a combination of hardware and software which limits the exposure of a computer or a group of computers to an attack from outside. *See, e.g.,* NEWTON'S TELECOM DICTIONARY 281 (2001). Thus, the Applicants respectfully assert that the references, alone or in combination, do not teach or suggest all of the limitations of claim 4. With respect to a motivation for combining or modifying the references, the Examiner asserts that it would have been obvious to incorporate a second gateway in *Bereiter's* system to allow data to be quickly accessed by the end-user or host. (Paper No. 3, page 7.) However, as discussed above, the firewalls of *Minear* are not fan-out nodes. Moreover, the motivation or suggestion to modify the reference must be clear and particular, and be found in one of the possible sources thereof, not in the Application itself. *See, e.g., In re McLaughlin*, 443 F.2d 1392, 1395, 170 U.S.P.Q. 209, 212 (C.C.P.A. 1971) (stating that a motivation must not rely on knowledge gleaned only from the Applicants disclosure). Thus, for at least these reasons, the Applicants respectfully contend that a *prima facie* showing of obviousness has not been made with respect to claim 4, and claim 4 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Minear*.

VII. REJECTION UNDER 35 U.S.C. § 103

Claims 6 and 8 have been rejected under 35 U.S.C. § 103 as being unpatentable over *Bereiter* in view of *Chang et al.*, U.S. Patent No. 5,367,643 ("*Chang*"). The Applicants respectfully traverse the rejection of claims 6 and 8 under 35 U.S.C. § 103.

Claim 6 is directed to the system of claim 5 in which a preselected one of the one or more data processing systems for managing data distributions enqueues the request in a database. *Bereiter* admittedly fails to teach the limitations of claim 6. (Paper No. 3, page 8.) As an initial matter, as discussed in conjunction with claim 5, from which claim 6 depends, there is no teaching in *Bereiter* directed to a request for a data distribution. With respect to the limitation in claim 6 admittedly missing from *Bereiter*, *Chang* allegedly cures the defect in *Bereiter*. (Paper No. 3, page 8.) The Applicants respectfully disagree.

Chang is directed to a generic high bandwidth adapter having data packet memory for temporary storage of variable length data packets thereby providing a data interface between system buses, switching fabrics, transmission media and a variety of LANs. (*Chang*, column 1, lines 1-17.) The limitation of claim 6 is alleged to be explicitly taught by *Chang* in disclosing that the adapter organizes packets into queues, each queue comprising a linked list of data packets having a given priority level and destined for the same logical input/output port or to be processed in a similar manner by a processor subsystem, the queues organized into a queue set for each input/output port. (Paper No. 3, page 8) (citing *Chang*, column 5, lines 10-25). The Examiner also refers to teaching in *Chang* that discloses that each input/output port examines the contents of incoming data packets and determines the proper queue into which the data packet should be enqueued. (Paper No. 3, page 8) (citing *Chang*, column 5, lines 33-36). With respect to the queues in *Chang*, *Chang* further discloses that a queue is a list of packets stored in sequence whereby a packet can be enqueued either from the queue head or from the queue tail and that a generic adapter manager (GAM) has a queue control block for every queue in the adapter. (*See, e.g.*, Paper No. 3, page 8) (citing *Chang*, column 19, lines 21-33). Thus, the express teaching in *Chang* relied upon does not teach or suggest the limitations of claim 6, and the Examiner has provided no evidence supporting a contention that

the limitations of claim 6 are inherent in the teachings. Consequently, the references, alone or in combination, have not been shown to teach the limitations of claim 6. With respect to a motivation for modifying or combining the references, it is contended that it would have been obvious to include one or more data processing systems enqueuing the request in a database to allow request to be removed in the same order they were entered. (Paper No. 3, page 8.) However, as previously discussed, a motivation or suggestion to modify a reference must be found in the references themselves, the nature of the problem to be solved, or the knowledge of persons of ordinary skill in the art. None of these sources has been identified as the source of the motivation for combining *Bereiter* and *Chang* to make the invention of claim 6. Consequently, a *prima facie* showing of obviousness has not been made with respect to claim 6, consequently, the Applicants respectfully contend, therefore, that claim 6 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Chang*.

Claim 8 further depends from claim 6 and recites the system thereof in which the request is assigned a preselected distribution priority and the request is enqueued in accordance with the preselected distribution priority. Again, *Bereiter* admittedly fails to teach the limitation of claim 8. (Paper No. 3, page 8.) *Chang* allegedly teaches the limitation of claim 8 and the disclosure discussed in conjunction with claim 6, and in additionally disclosing that users of services send a current request for the services to a manager with a current request defining a specified address in a memory of the manager and wherein the manager has previously prepared responses to anticipated request for services and stored the responses at specified addresses in its memory, the manager sending, a response which had been previously prepared and stored at the specified address in response to the current request. (Paper No. 3, page 8) (citing *Chang*, column 5, lines 10-25, lines 33-36, lines 58-64 and column 19, lines 21-33). Again, the express teaching of *Chang* referred to does not disclose or suggest the limitations of claim 8, by their plain terms, and no rationale evidencing that the limitations are inherent in *Chang* has been provided. With respect to a motivation for modifying *Bereiter* to make the invention of claim 8, the Examiner asserts the same motivation as asserted with respect to claim 6. (Paper No. 3, page 8.) Because, for these reasons, the references alone or in combination have not been shown to teach or suggest all of the limitations of claim 8, nor has a

motivation upon which a *prima facie* showing of obviousness may be predicated been provided, the Applicants respectfully assert that claim 8 has not been shown to be *prima facie* obvious in view of *Bereiter* and *Chang*. Consequently, claim 8 is allowable under 35 U.S.C. § 103 over *Bereiter* and *Chang*.

VIII. REJECTION UNDER 35 U.S.C. § 103

Claims 13, 15, 20 and 22 have been rejected under 35 U.S.C. § 103 as being unpatentable over *Bereiter* in view of *Fujino* and in further view of *Nemirovski*. The Applicants respectfully traverse the rejection of claims 13, 15, 20 and 22 under 35 U.S.C. § 103.

Claim 13 is directed to the method of claim 10 and further including the steps of assigning one of a preselected set of priority values to each data distribution, and determining an availability of a network connection for the step of transferring the data in response to the one of the preselected set of priority values. *Bereiter* and *Fujino* are relied upon as teaching the limitations of claim 13 incorporated therein through its dependency on claim 10. As an initial matter, as discussed hereinabove in conjunction with, *inter alia*, claim 10, the Applicants respectfully disagree that these limitations have been shown to be taught or suggested by *Bereiter* in view of *Fujino*. Moreover, the express limitation of claim 13 is admittedly missing in *Bereiter* and *Fujino*. (Paper No. 3, page 9.)

The Examiner relies on the discussion in *Nemirovsky* discussed hereinabove in conjunction with, *inter alia*, claim 3 as disclosing, at least implicitly, the limitations of claim 13. For the reasons discussed in conjunction with claim 3, the Applicants respectfully contend that the teachings in *Nemirovsky* have not been shown to teach either explicitly or implicitly, the limitations of claim 13. In sum, *Nemirovsky* is directed to a system for assigning priorities associated with an instruction stream relative to competing instruction streams in a multi-streaming processor. (*Nemirovsky*, column 5, lines 61 through column 6, line 2.) Thus, neither *Bereiter*, *Fujino* or *Nemirovsky*, alone or in combination, teach or suggest all of the limitations of claim 13. With respect to a motivation for modifying or combining the references, the Examiner asserts that it would have been obvious to make the invention of claim 13 to allow data to be processed in a timely and efficient manner

according to their priority value. (Paper No. 3, page 9.) Again, the Applicants respectfully contend that this motivation is not sufficient to sustain a *prima facie* showing of obviousness as not arising in one of the three possible sources thereof nor being clear and specific. (See MPEP § 2143.01; *In re Lee*, 277 F.3d at 1343, 61 U.S.P.Q.2d at 1433-34; *In re Kotzab*, 217 F.3d at 1371, 55 U.S.P.Q.2d at 1317; *In re Dembiczak*, 175 F.3d at 999, 50 U.S.P.Q.2d at 1616. Therefore, a *prima facie* showing of obviousness has not been made with respect to claim 13, and claim 13 is allowable under 35 U.S.C. § 103 over *Bereiter*, *Fujino* and *Nemirovsky*. Claim 20 has been rejected on the same basis as claim 13. Claim 20 has been rejected as reciting a program product including instructions for performing operations paralleling the steps of claim 13. For at least the reasons discussed in conjunction with claim 13, the Applicants also respectfully contend that claim 20 is allowable under 35 U.S.C. § 103 over *Bereiter*, *Fujino* and *Nemirovsky*.

Claim 15 is directed to the method of claim 13 and further including the steps of assigning a distribution lifetime value to each data distribution, and aborting the step of transferring the data in response to an unavailability of the connection for a time interval corresponding to the distribution lifetime. As discussed hereinabove, in conjunction with claims 13 and 10, the limitations of which are incorporated into claim 15, the Applicants respectfully contend that *Bereiter* and *Fujino*, alone or in combination, fail to teach these limitations incorporated in claim 15 by reference. Additionally, *Bereiter* and *Fujino* admittedly fail to disclose the express limitations of claim 15. (Paper No. 3, pages 9-10.) The Examiner relies on *Nemirovsky* as disclosing the limitations of claim 15 (Paper No. 3, page 10.) *Nemirovsky* allegedly teaches the limitations of claim 15 in disclosing, at least implicitly, that a thread is made active by loading an available context frame with the threads program counter address and register values and assigning it an active priority and that when there are more active threads than streams available to execute threads, a number of threads up to the available number of context frames are made active and the remaining threads remain temporarily inactive (assigning a distribution lifetime value). (*See* Paper No. 3, page 10) (citing *Nemirovsky*, column 7, lines 17-25). With respect to the step of aborting the transferring step . . . , *Nemirovsky* allegedly discloses this limitation, at least implicitly, in disclosing that logic for determining and

issuing priorities in various embodiments may be implemented in a variety of ways, including that priorities may be fixed by stream, but access to resources may be managed in addition to priority access, or, alternatively, priority by stream may vary and access may be dynamically managed as well; criteria for both access and priority termination may be from varied sources as well, including on-chip statistics, functional unit utilization or branch prediction, according to data arrival and availability, or by input form off-chip and, and in combinations of these and other criteria. (*See* Paper No. 3, page 10) (citing *Nemirovsky*, column 5, lines 60 through column 6, line 16). Plainly, these teachings do not disclose a step of aborting a step of transferring data in response to an unavailability of a connection time. Moreover, as previously discussed with respect to *Nemirovsky*, *Nemirovsky* is directed to mechanisms for assigning priorities representing an instruction stream's claim to processing resources relative to competing instruction streams. With respect to a motivation for modifying or combining the references, the Examiner asserts that it would have been obvious so as to allow data to be deleted when a time period has expired. (Paper No. 3, page 10.) Again, for reasons analogous to those discussed hereinabove, the motivation for modifying *Bereiter* or combining *Bereiter* with *Nemirovsky* and *Fujino* are not sufficient to demonstrate a *prima facie* showing of obviousness. Consequently, for at least this reason and because the references alone or in combination have not been shown to teach or suggest all of the limitations of claim 15, the Applicants respectfully assert that a *prima facie* showing of obviousness has not been made with respect to claim 15. Consequently, claim 15 is allowable under 35 U.S.C. § 103 over *Bereiter*, *Fujino* and *Nemirovsky*.

Claim 22 has been rejected on the same ground as claim 15 as being directed to a program product including instructions for performing operations paralleling the method steps of claim 15. For at least the reasons discussed in conjunction with claim 15, the Applicants also respectfully assert that claim 22 is allowable under 35 U.S.C. § 103 over *Bereiter*, *Fujino* and *Nemirovsky*.

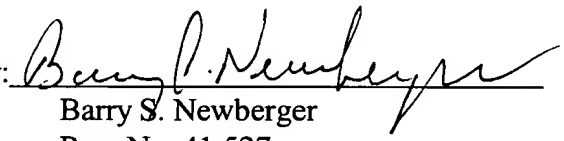
IX. CONCLUSION

As a result of the foregoing, it is asserted by Applicants that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

WINSTEAD SECHREST & MINICK P.C.
Attorneys for Applicant

By: 
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VERSION TO SHOW CHANGES MADE

IN THE CROSS REFERENCE TO RELATED APPLICATIONS

(1) The Cross-Reference to Related Applications has been rewritten as follows:

Related subject matter may be found in the following commonly assigned, co-pending U.S. Patent Applications which are hereby incorporated by reference herein:

Serial No. 09/460,855 (AT9-99-275), entitled "APPARATUS FOR DATA DEPOTING AND METHOD THEREFOR" ;

Serial No. 09/460,853 (AT9-99-276), entitled "APPARATUS FOR RELIABLY RESTARTING INTERRUPTED DATA TRANSFER AT LAST SUCCESSFUL TRANSFER POINT AND METHOD THEREFOR";

Serial No. 09/438,436 (AT9-99-655), entitled "APPARATUS FOR CONNECTION MANAGEMENT AND METHOD THEREFOR" and filed concurrently herewith;

Serial No. 09/458,268 (AT9-99-324), entitled "COMPUTER NETWORK CONTROL SYSTEMS AND METHODS" and filed concurrently herewith;

Serial No. 09/460,852 (AT9-99-325), entitled "METHODS OF DISTRIBUTING DATA IN A COMPUTER NETWORK AND SYSTEMS USING THE SAME";

Serial No. 09/458,269 (AT9-99-315), entitled "SYSTEMS AND METHODS FOR REAL TIME PROGRESS MONITORING IN A COMPUTER NETWORK;

Serial No. 09/460,851 (AT9-99-316), entitled "APPARATUS FOR AUTOMATICALLY GENERATING RESTORE PROCESS DURING SOFTWARE DEPLOYMENT AND METHOD THEREFOR"; and

Serial No. 09/460,854 (AT9-99-323), entitled "AN APPARATUS FOR JOURNALING DURING SOFTWARE DEPLOYMENT AND METHOD THEREFOR".

IN THE DETAILED DESCRIPTION

(1) The paragraph at page 9, line 13 through page 10, line 5 has been rewritten as follows:

Source system 101 provides distribution services with respect to resources 112-117. Note that source system 101 and endpoints 112-117 interfaces to repeaters 110 and 111 using the same methodologies as repeaters 110 and 111 interface with, for example, repeaters 118 and 119. Viewed logically, source system [110] 101 and endpoints 112-117 each may include a "repeater". In other words, as an artisan of ordinary skill would recognize, as used herein, a repeater may be a logical element, that may be, but is not necessarily associated with a physical stand-alone hardware device in network 100. Repeater 110 may be the primary repeater through which resources 112-114 receive their data transfers, and repeater 111, likewise, may primarily service endpoints 115-117. Additionally, any report-back of successful transfers will be transmitted primarily via the endpoints primary domain except as explained below. It would be understood by an artisan of ordinary skill that additional repeaters may be inserted into the network and may be arranged in a multi-level hierarchy according to the demands imposed by the network size.

(2) The paragraph at page 10, line 20 through page 11, line 18 has been rewritten as follows:

Referring next to FIGURE 2, an example is shown of a data processing system 200 which may be used to implement a source system such as system 101, repeaters, such as repeaters 110, 111, 118, or 119 or endpoints, such as endpoints 112-117, executing the methodology of the present invention. The system has a central processing unit (CPU) 210, which is coupled to various other components by system bus 212. Read only memory ("ROM") 216 is coupled to the system bus 212 and includes a basic input/output system ("BIOS") that controls certain basic functions of the data processing system 200. Random access memory ("RAM") 214, I/O adapter 218, and communications adapter 234 are also coupled to the system bus 212. I/O adapter 218 may be a small computer system interface ("SCSI") adapter that communicates with a disk storage device 220. Disk storage device 220 may be used to hold database 120, FIGURE 1. Communications adapter 234

interconnects bus 212 with the network as well as outside networks enabling the data processing system to communicate with other such systems. Input/Output devices are also connected to system bus 212 via user interface adapter 222 and display adapter 236. Keyboard 224, track ball 232, mouse 226 and speaker 228 are all interconnected to bus 212 via user interface adapter 222. Display monitor 238 is connected to system bus 212 by display adapter 236. In this manner, a user is capable of inputting to the system throughout the keyboard 224, trackball 232, [or] mouse 226, or microphone 250 and receiving output from the system via speaker 228 and display 238.

(3) The paragraph at page 21, line 17 through page 22, line 5 has been rewritten as follows:

In step [518] 515, it is determined if the distribution has a high priority level. If not, then in step 520, it is determined if the distribution has a medium priority level. If not, then the distribution has a low priority, step 530 and, in step 535, it is determined if a session is available in the low-priority pool. If low priority session is available, then in step 550, methodology 500 signals that a connection is available. In an embodiment of the present invention in accordance with methodology 400, FIGURES 4A and 4B, the information from step 550 may be received in steps 405 and 414 in response to the opening of connections in steps 404 and 412, respectively. Conversely, if no low priority sessions are available in step 535, in step 540 methodology 500 signals that no session is available.

IN THE CLAIMS

(1) Claim 14 has been rewritten as follows:

14. (Amended) The method of Claim [11] 13 further comprising the step of determining an availability of a network connection for said transferring of results information in response to said one of said preselected set of priority values.

(2) Claim 21 has been rewritten as follows:

21. (Amended) The program product of Claim [18] 20 further comprising instructions for determining an availability of a network connection for said transferring of results information in response to said one of said preselected set of priority values.

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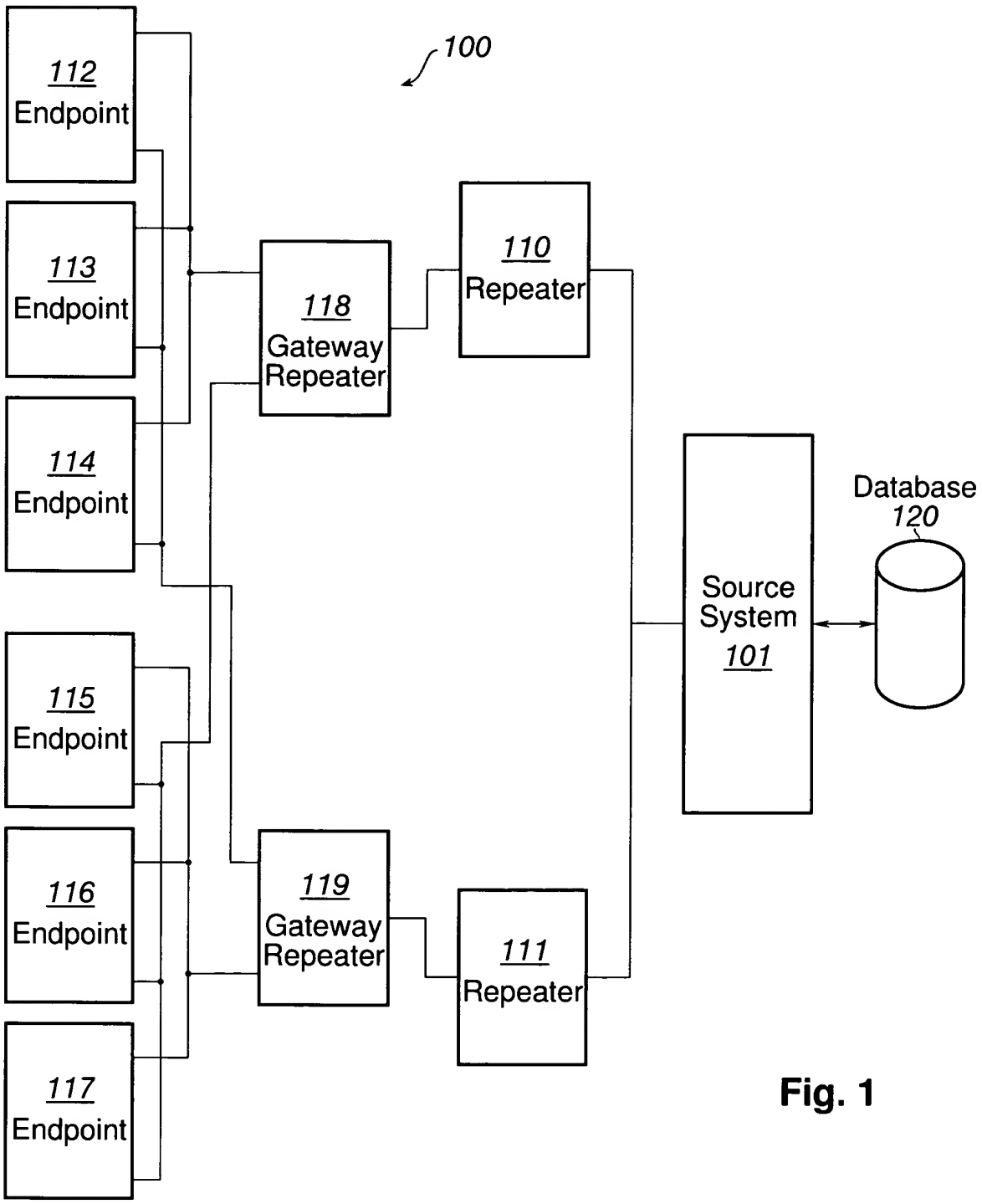

Fig. 1

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The Official Dictionary of Telecommunications
Networking and Internet

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an operating parameter used in LAN bridges and routers that when set will cause these ices to block the transfer of packets from one LAN to another. Filters can be set to pre- the internetworking of several types of messages. They may be set to block all pack- originating from a specific destination, called source address filtering, or all packets ding for a particular destination, called destination address filtering. Filters may also be to exclude packet of a particular protocol or any particular filed in a LAN packet.

See TAPI 3.0

ering 1. A process used in both analog and digital processing to pass one frequency while blocking others or visa-versa. Filters can be designed to remove information con- such as high or low frequencies, for example, or, in image processing, to average adja- pixels, creating a new value from two or more pixels. "Tap" refers to the number of erent lines or pixels considered in this process. MPEG, for instance, makes use of a 7- ap filter.

bridges can reduce LAN congestion through a process of filtering. A filtering bridge reads e destination address of a data packet and performs a quick table lookup in order to ermine whether it should forward that packet through a port to a particular physical LAN gment. A four-port bridge, for instance, would accept a packet from an incoming port and ward it only to the LAN segment on which the target device is connected; thereby, the ffic on the other two segments is reduced and the level of traffic on the those segments reduced accordingly. Filtering bridges may be either programmed by the LAN admini- tor or may be self-learning. Self-learning bridges "learn" the addresses of the attached ices on each segment by initiating broadcast query packets, and then remembering the iginating addresses of the devices which respond. Self-learning bridges perform this ocess at regular intervals in order to repeat the "learning" process and, thereby, to adjust the physical relocation of devices, the replacement of NICs (Network Interface Cards), d other changes in the notoriously dynamic LAN environment.

ering Agent A new form of smart agent whose basic job is to keep away all e stuff you don't want and find the stuff you do want — such as information gleaned m the Internet. See also V-Chip.

ering Bridge See Bridge.

ering Traffic This is the process of selecting which traffic will be allowed into certain portion of a network, such as the wide area network. It is also the process of ermining which traffic is transmitted first, then next, and so on. The traffic is compared the filter, or a set of specifications, to determine if it can pass through or not.

Field inspection notice.

l Draft Lisa Kiell's strange idea of completing a transaction. See Oxymoron.

l Trunk Group A last-choice trunk group that receives overflow traffic and ich may receive first-route traffic for which there is no alternate route.

l Me Service An AIN version of call forwarding, allowing the forward numbers e programmed or re-programmed from any location. Additionally, priority access can be ced to specific callers based on password privilege. For instance, only highly privileged ls would be forwarded to your cell phone, in consideration of the high cost of airtime.

der The user interface portion of the Apple Macintosh operating system. Unlike run- g Windows on top of DOS, tight integration of the finder and system requires both to running.

ger 1. A standard protocol specified in RFC-742. A program implementing this pro- col lists who is currently logged in on another host. In short, finger is a computer com- nd that displays information about people using a particular computer, such as their mes and their identification numbers.

Also known as a tine. An individual digital channel of a wireless rake receiver. A rake iver can support a number of tines, which can be combined to form a stronger received nal.

ite State Machine A computer system with a defined set of possible states d defined transitions form state to state. Given the same inputs, two identical state chines will change states identically.

Federal Information Processing Standard. See also FIPS PUBS nn.

PUBS nn Various standards for data communications.

-60 Bus and tag channel interface for IBM 360/370 mainframes (multidrop, two ial cables)one for data, one for control information, 1.5-4.5 Megabytes per second d a maximum distance of 121 meters.

To discharge someone. In Scotland during medieval times, if your clan wanted to rid of you, but not kill you, they would set fire to your house. Hence, the origin of the ression, "to get fired." The story goes that in the early part of the 20th century, if an NCR salesman lost an order, when he returned to his office, they put his desk out on the front lawn and burned the desk. Then they "fired" the salesman.

Fire Break A material, device, or assembly of parts installed along a cable, other than at a cable penetration of a fire barrier, to prevent the spread of fire along a cable.

Fireplug In the late 1700s the larger American cities, such as Philadelphia, laid pipes to bring in water. This was not for drinking, but for firefighting purposes. The pipes were made out of hollowed out logs placed end to end and buried under the streets. When there was a fire, the firemen would punch through to the pipe to pump the water out, and once finished would plug the hole using a wooden stake of the proper size. Hence the name, "fireplug."

Firestop A material, device, or assembly of parts installed in a cable pathway at a fire-rated wall or floor to prevent passage of flame, smoke or gases through the rated barrier, (e.g., between cubicles or separated rooms or spaces).

Firestop System A specific construction consisting of the material(s) (firestop penetration seals) that fill the opening in the wall or floor assembly and any items that penetrate the wall or floor, such as cables, cable trays, conduit, ducts, pipes, and any termination devices, such as electrical outlet boxes, along with their means of support.

Firestopping The process of installing specialty materials into penetrations in fire-rated barriers to reestablish the integrity of the barrier.

Firewall A combination of hardware and software which limits the exposure of a computer or group of computers to an attack from outside. The most common use of a firewall is on a local area network (LAN) connected to the Internet. Without a firewall, anyone on the Internet could theoretically jump onto the corporate LAN and pick up any information on or dump anything to any of the computers on the LAN. A firewall is a system or combination of systems that enforce a boundary between two or more networks. There are several types of firewalls — packet filter, circuit gateway, application gateway or trusted gateway. A network-level firewall, or packet filter, examines traffic at the network protocol packet level. An application-level firewall examines traffic at the application level — for example, FTP, E-mail, or Telenet. An application-level firewall also often readdresses outgoing traffic so it appears to have originated from the firewall rather than the internal host. NEC PrivateNet Systems Group issued a White Paper called Connecting Safely to the Internet — A study in Proxy-Based Firewall Technology. In that White Paper, they defined an Internet firewall:

The primary purpose of an Internet firewall is to provide a single point of entry where a defense can be implemented, allowing access to resources on the Internet from within the organization, and providing controlled access from the Internet to hosts inside the organization's internal networks. The firewall must provide a method for a security or system administrator to configure access control lists to establish the rules for access according to local security policies. All access should be logged to ensure adequate information for detailed security audit.

A traditional firewall is implemented through a combination of hosts and routers. A router can control traffic at the packet level, allowing or denying packets based on the source/destination address of the port number. This technique is called packet filtering. A host, on the other hand, can control traffic at the application level, allowing access control based on a more detailed and protocol-dependent examination of the traffic. The process that examines and forwards packet traffic is known as a proxy.

A firewall based on packet filtering must permit at least some level of direct packet traffic between the Internet and the hosts on the protected networks. A firewall based on proxy technology does not have this characteristic and can therefore provide a higher level of security, albeit at the cost of somewhat lower performance and the need for a dedicated proxy for each type of connectivity.

Each organization needs to choose one of these basic types of technologies. The right choice depends on the organization's access and protection requirements. See Packet Filtering.

FireWire It's a 100 Mbps serial bus, also known as IEEE 1394. It is geared to become a digital interface for consumer video electronics and hard-disk drives. It's designed for up to 4.5 meters per segment and features six pins per connector. See IEEE 1394, USB, Universal Serial Bus.

Firm Order Confirmation FOC. The form a local phone company submits to another phone company indicating the date when the circuits ordered by the other company will be installed. See FOC for a longer explanation.

Firmware Software kept in semipermanent memory. Firmware is used in conjunction with hardware and software. It also shares the characteristics of both. Firmware is usu-